**Pi Day Word Problems**

Solve as many problems as you can…Record your answers below. Each problem solved is worth 2 points! Show your work…

1. A string is wrapped around the equator (radius=r). You cut it and splice in an extra yard and make a new circle above the equator. Which of the following animals could fit under the resulting circle? A mouse, a miniature dachshund, a German Shepherd, a horse, or a giraffe. Support your answer with calculations.
2. Captain Snorkel is supervising the construction of his new tourist submarine. The sub design calls for the installation of 20 round view ports with each view port being 19 inches in diameter. How many square feet of transparent material will be included in the view ports? \_\_\_\_\_\_ square ft
3. Mr. Bloop is rolling small steel disks down a ramp. Each disk is 4 cm in diameter and 5 mm thick. It takes 7 seconds to go down the ramp and the distance traveled from the top to the bottom of the ramp is 119 cm. How many revolutions does a disk make on the way down? Round your answer to the nearest hundredth.
4. Devin made seven pepperoni pizzas for a party. He cut the pepperoni himself from a sausage that was 13 inches long and 1 3/4 inches in diameter. The pizzas were each 14 inches in diameter. His friend Taylor is a real math whiz and took the opportunity to calculate what percent of the total pizza surface area was covered by pepperoni. The pepperoni was cut into slices 1/4 of an inch thick. Each pizza has the same number of whole pepperoni slices (he ate any extra pepperoni!). What percent of the total pizza surface area was covered by the pepperoni? Round your answer to the nearest hundredth.
5. A coil of wire was found lying in the shipyard. Megan wondered if it would be enough to temporarily hold some steel plates in position while they were being welded. The wire was braided steel 1-cm thick. The coil was neatly wound in a single layer around a wooden spool 1.3 meters in diameter. The wire spanned a distance of 56 cm on the spool. She needed 365 meters of wire to do the job. Find the length of the wire to support your answer to the following question:  
   Is the coil of wire long enough for her purposes?